

**Amendments to the Specification:**

Please replace the paragraph starting on line 19 on page 15, with the following rewritten paragraph:

**Figures 2A-2B** show zinc release by electrical stimulation in the hilus causes an increase in extracellular  $\text{Zn}^{2+}$  fluorescence shown in ~~yellow-red~~ grey ~~in the pseudocolor inserts~~ (**Figure 2A**) ~~before and~~ after stimulation. Note the rapid rise in the quantitative measure of zinc fluorescence (**Figure 2B**).

Please replace the paragraph starting on line 15, on page 16, with the following rewritten paragraph:

**Figure 6** shows nitric oxide releases  $\text{Zn}^{2+}$  *in vitro*. The  $\text{Zn}^{2+}$  fluorescence in the extracellular fluid of a hippocampal brain slice is normally low (top left) and is raised by the addition of the nitric oxide generator SNAP (top right). Subtraction shows the clear  $\text{Zn}^{2+}$  signal over the zinc-rich boutons in the hilus (arrow, lower right). Bright field image shows anatomical landmarks (lower left). The fluorescent “hotspots” is amidst the densest skeins of zinc-rich mossy fibers.

Please replace the paragraph starting on line 11, on page 17, with the following rewritten paragraph:

**Figures 10A-10D** show cellular co-localization of MT and albumin. HepG2 cells were incubated with F-albumin (Alb) and R-MT, both 250 nM, for 30 min at 37 °C. Images of Cys5-labeled concavalin A, a cell contour marker in ~~[[blue]]~~ dark grey (**Figure 10A**), R-MT in ~~[[red]]~~ white (**Figure 10B**), F-Alb in ~~green~~ light grey (**Figure 10C**), and a merged image overlapping all three. Co-localization of MT and albumin is indicated by the ~~yellow and~~ white color in the merged picture.